

CHAPTER 6

FUTURE DIRECTIONS IN THE HIWASSEE RIVER WATERSHED

- 6.1. Background**
- 6.2. Comments from Public Meetings**
 - 6.2.A. Year 1 Public Meeting**
 - 6.2.B. Year 3 Public Meeting**
 - 6.2.C. Year 5 Public Meeting**
- 6.3. Approaches Used**
 - 6.3.A. Point Sources**
 - 6.3.B. Nonpoint Sources**
- 6.4. Permit Reissuance Planning**
 - 6.4.A. Municipal Permits**
 - 6.4.B. Industrial Permits**
 - 6.4.C. Water Treatment Plant Permits**

6.1. BACKGROUND.

The Watershed Water Quality Management Plan serves as a comprehensive inventory of resources and stressors in the watershed, a recommendation for control measures, and a guide for planning activities in the next five-year watershed cycle and beyond. Water quality improvement will be a result of implementing both regulatory and nonregulatory programs.

In addition to the NPDES program, some state and federal regulations, such as the TMDL and ARAP programs, address point and nonpoint issues. Construction and MS4 stormwater rules (implemented under the NPDES program) are transitioning from Phase 1 to Phase 2. More information on stormwater rules may be found at: <http://www.state.tn.us/environment/wpc/stormh2o/MS4.htm>.

This Chapter addresses point and nonpoint source approaches to water quality problems in the Hiwassee River Watershed as well as specific NPDES permittee information.

6.2. COMMENTS FROM PUBLIC MEETINGS. Watershed meetings are open to the public, and most meetings were represented by citizens who live in the watershed, NPDES permittees, business people, farmers, and local river conservation interests. Locations for meetings were frequently chosen after consulting with people who live and work in the watershed. Everyone with an interest in clean water is encouraged to be a part of the public meeting process. The times and locations of watershed meetings are posted at: <http://www.state.tn.us/environment/wpc/public.htm>.

6.2.A. Year 1 Public Meeting. The first Hiwassee River Watershed public meeting was held April 10, 1997 in Cleveland. The goals of the meeting were to 1)present, and review the objectives of, the Watershed Approach, 2)introduce local, state, and federal agency and nongovernment organization partners, 3)review water quality monitoring strategies, and 4)solicit input from the public.

Major Concerns/Comments

- ◆ Effects of polluted waters flowing into Tennessee from out of state
- ◆ Need to increase public participation at meetings
- ◆ Need more river access for recreation
- ◆ Trash (litter)
- ◆ Erosion and the resulting sediment getting into rivers
- ◆ Effect of 319 Program's move to Department of Agriculture
- ◆ Water withdrawals

6.2.B. Year 3 Public Meeting. The second Hiwassee River Watershed public meeting was held August 10, 1999 in Athens (Tennessee Wesleyan College). The goals of the meeting were to 1)provide an overview of the watershed approach, 2)review the monitoring strategy, 3)summarize the most recent water quality assessment, 4)discuss the TMDL schedule and citizens' role in commenting on draft TMDLs, and 5)discuss BMPs and other nonpoint source tools available through the Tennessee Department of Agriculture 319 Program and NRCS conservation assistance programs.

Major Concerns/Comments

- ◆ Nonpoint sources of pollution have to be addressed if the TMDL is to be thorough
- ◆ Municipalities will be asked to shoulder the burden of the cost of clean water while agriculture does not
- ◆ Fairness to taxpayers of paying for water quality improvements when most problems are due to agriculture

6.2.C. Year 3 Public Meeting. The third scheduled Hiwassee River Watershed public meeting was held November 6, 2003 at Tennessee Wesleyan University in Athens. The meeting featured six educational components:

- Overview of draft Watershed Water Quality Management Plan slide show
- Benthic macroinvertebrate samples and interpretation
- SmartBoard™ with interactive GIS maps
- “How We Monitor Streams” self-guided slide show
- “Why We Do Biological Sampling” self-guided slide show
- UT-Extension Service Display
- Tennessee Valley Authority Display

In addition, citizens had the opportunity to make formal comments on the draft Watershed Water Quality Management Plan and to rate the effectiveness of the meeting.

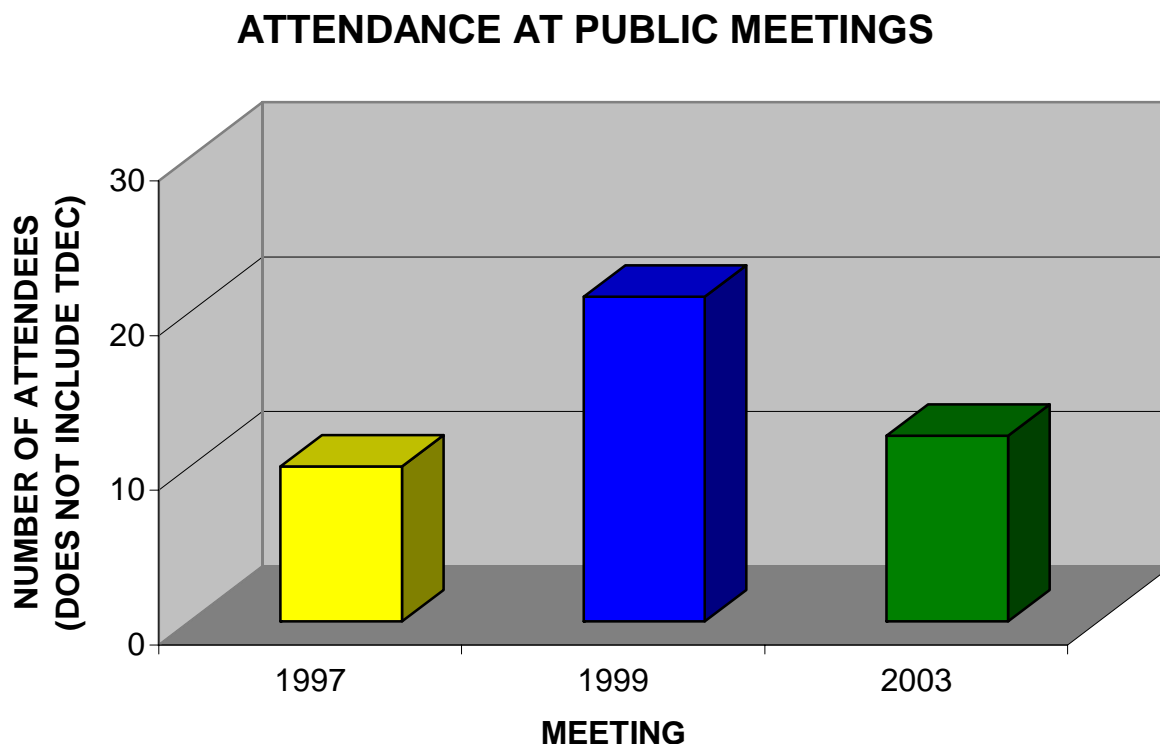


Figure 6-1. Attendance at Public Meetings in the Hiwassee River Watershed.



Figure 6-2. Watershed meetings with an educational slide program about the watershed and a review of the draft Watershed Water Quality Management Plan.



Figure 6-3. The SmartBoard™ is an effective interactive tool to teach citizens about the power of GIS.



Figure 6-4. Microscopes and hand lenses help Environmental Specialist Steve Winesett teach participants about the relationship between aquatic insects and water quality.

6.3. APPROACHES USED.

6.3.A. Point Sources. Point source contributions to stream impairment are primarily addressed by NPDES and ARAP permit requirements and compliance with the terms of the permits. Notices of NPDES and ARAP draft permits available for public comment can be viewed at <http://www.state.tn.us/environment/wpc/wpcppo/>. Discharge monitoring data submitted by NPDES-permitted facilities may be viewed at http://www.epa.gov/enviro/html/pes/pes_query_java.html.

The purpose of the TMDL program is to identify remaining sources of pollution and allocate pollution control needs in places where water quality goals are still not being achieved. TMDL studies are tools that allow for a better understanding of load reductions necessary for impaired streams to return to compliance with water quality standards. More information about Tennessee's TMDL program may be found at:
<http://www.state.tn.us/environment/wpc/tmdl.php>

Approved TMDL:

Oostanaula Creek TMDL. TMDL for fecal coliform in the Hiwassee River Watershed approved September 20, 2002:
<http://www.state.tn.us/environment/wpc/OostF2.pdf>

Cane Creek TMDL. Total Maximum Daily Load for fecal coliform in Cane Creek, Hiwassee River Watershed, McMinn County, Tennessee:
<http://www.state.tn.us/environment/wpc/tmdl/approvedtmdl/CaneF3.pdf>

TMDLs are prioritized for development based on many factors.

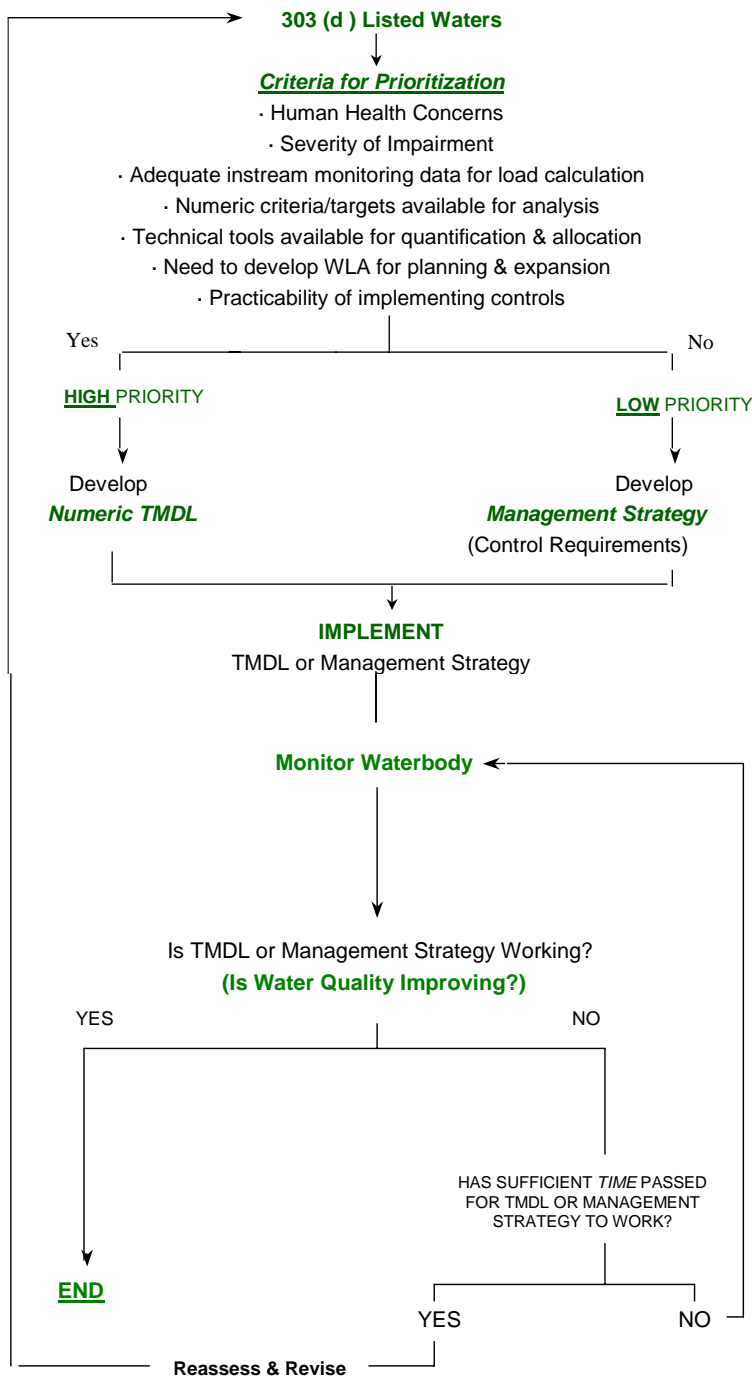


Figure 6.5. Prioritization scheme for TMDL Development.

6.3.B. Nonpoint Sources

Common nonpoint sources of pollution include urban runoff, riparian vegetation removal, and inappropriate land development, agricultural, and road construction practices. Since nonpoint pollution exists essentially everywhere rain falls and drains to a stream, existing point source regulations can have only a limited effect, so other measures are necessary.

There are several state and federal regulations that address some of the contaminants impacting waters in the Hiwassee River watershed. Most of these are limited to only point sources: a pipe or ditch. Often, controls of point sources are not sufficient to protect waters, so other measures are necessary. Some measures include voluntary efforts by landowners and volunteer groups, while others may involve new regulations. Many agencies, including the Tennessee Department of Agriculture and NRCS, offer financial assistance to landowners for corrective actions (like Best Management Practices) that may be sufficient for recovery of impacted streams. Many nonpoint problems will require an active civic involvement at the local level geared towards establishment of improved zoning guidelines, building codes, streamside buffer zones and greenways, and general landowner education.

The following text describes certain types of impairments, causes, suggested improvement measures, and control strategies. The suggested measures and streams are only examples and efforts should not be limited to only those streams and measures mentioned.

6.3.B.i. Sedimentation.

6.3.B.i.a. From Construction Sites. Construction activities have historically been considered “nonpoint sources.” In the late 1980’s, EPA designated them as being subject to NPDES regulation if more than 5 acres are disturbed. In the spring of 2003, that threshold became 1 acre. The general permit issued for such construction sites sets out conditions for maintenance of the sites to minimize pollution from stormwater runoff, including requirements for installation and inspection of erosion controls. Also, the general permit imposes more stringent inspection and self-monitoring requirements on sites in the watershed of streams that are already impaired due to sedimentation. Examples in the Hiwassee River Watershed are Conasauga Creek and Candies Creek. Regardless of the size, no construction site is allowed to cause a condition of pollution.

Construction sites within a sediment-impaired watershed may also have higher priority for inspections by WPC personnel, and are likely to have enforcement actions for failure to control erosion.

The same requirements apply to sites in the drainage of high quality waters. Blackburn Creek and Gee Creek are examples of high quality streams in the Hiwassee River Watershed.

6.3.B.i.b. From Channel and/or Bank Erosion. Due to the past channelization of Oostanaula Creek, Candies Creek, and other Hiwassee River tributaries, the channels are unstable. Several agencies are working to stabilize portions of stream banks.

These include NRCS and the Tennessee Valley Authority, as well as citizen groups. Other methods or controls that might be necessary to address common problems are:

Voluntary activities

- Re-establishment of bank vegetation (example: tributaries of Candies Creek).
- Establish off-channel watering areas for cattle by moving watering troughs and feeders back from stream banks (examples: Chatata Creek and Agency Creek).
- Limit cattle access to streams and bank vegetation (example: Hawkins Branch).

Additional strategies

- Increase efforts in the Master Logger program to recognize impaired streams and require more effective management practices.
- Better community planning for the impacts of development on small streams, especially development in growing areas (examples: South Mouse Creek, Oostanaula Creek, and Cane Creek).
- Limit livestock access to streams and bank vegetation (example: Hawkins Branch and tributaries of Candies Creek).
- Restrictions requiring post-construction run-off rates to be no greater than pre-construction rates in order to avoid in-channel erosion (examples: South Mouse Creek and Oostanaula Creek).
- Additional restrictions on logging in streamside management zones.
- Prohibition on clearing of stream and ditch banks (example: Conasauga Creek).
Note: Permits may be required for any work along streams.
- Additional restriction to road and utilities crossings of streams.
- Restrictions on the use of off-highway vehicles on stream banks and in stream channels.

6.3.B.i.c. From Agriculture and Silviculture. Even though there is an exemption in the Water Quality Control Act which states that normal agricultural and silvicultural practices which do not result in a point source discharge do not have to obtain a permit, efforts are being made to address impacts due to these practices.

The Master Logger Program has been in place for several years to train loggers how to plan their logging activities and to install Best management Practices that lessen the impact of logging activities. Recently, laws and regulations were enacted which established the expected BMPs to be used and allows the Commissioners of the Departments of Environment and Conservation and of Agriculture to stop a logging operation that has failed to install these BMPs and so are impacting streams.

Since the Dust Bowl era, the agriculture community has strived to protect the soil from wind and soil erosion. Agencies such as the Natural resources Conservation Service (NRCS), the University of Tennessee Agricultural Extension Service, and the Tennessee department of Agriculture have worked to identify better ways of farming, to educate the farmers, and to install the methods that address the sources of some of the impacts due to agriculture. Cost sharing is available for many of these measures. Oostanaula Creek would benefit from the installation of several BMPs to address the sediment lost from fields in this watershed.

6.3.B.ii. Pathogen Contamination.

Possible sources of pathogens are inadequate or failing septic tank systems, overflows or breaks in public sewer collection systems, poorly disinfected discharges from sewage treatment plants, and fecal matter in streams and storm drains due to pets, livestock and wildlife. Permits issued by the Division of Water Pollution Control regulate discharges from point sources and require adequate control for these sources. Individual homes are required to have subsurface, on-site treatment (i.e., septic tank and field lines) if public sewers are not available. Septic tank and field lines are regulated by the Division of Ground Water Protection within the Chattanooga Environmental Assistance Center and by delegated county health departments. In addition to discharges to surface waters, businesses may employ either subsurface or surface disposal of wastewater. The Division of Water Pollution Control regulates surface disposal.

Other measures that may be necessary to control pathogens are:

Voluntary activities

- Off-channel watering of livestock (examples: tributaries of Candies Creek, Hawkins Branch, and Dairy Creek).
- Limiting livestock access to streams (examples: Chatata Creek and Hawkins Branch).
- Proper management of animal waste from feeding operations.

Enforcement strategies

- Greater enforcement of regulations governing on-site wastewater treatment.
- Timely and appropriate enforcement for non-complying sewage treatment plants, large and small, and their collection systems.
- Identification of Concentrated Animal Feeding Operations not currently permitted, and enforcement of current regulations.

Additional strategies

- Restrict development in areas where sewer is not available and treatment by subsurface disposal is not an option due to poor soils, floodplains, or high water tables.
- Develop and enforce leash laws and controls on pet fecal material (example: South Mouse Creek).
- Greater efforts by sewer utilities to identify leaking lines or overflowing manholes, (example: Chestuee Creek).

6.3.B.iii. Excessive Nutrients and/or Dissolved Oxygen Depletion.

These two impacts are usually listed together because high nutrients often contribute to low dissolved oxygen within a stream. Since nutrients often have the same source as pathogens, the measures previously listed can also address many of these problems. Elevated nutrient loadings are also often associated with urban runoff from impervious surfaces and from fertilized lawns and croplands.

Other sources of nutrients can be addressed by:

Voluntary activities

- Educate homeowners and lawn care companies in the proper application of fertilizers.
- Encourage landowners, developers, and builders to leave stream buffer zones (examples of streams that could benefit are Candies Creek, tributaries of Conasauga Creek, and areas along stream channels). Streamside vegetation can filter out many nutrients and other pollutants before they reach the stream. These riparian buffers are also vital along livestock pastures.
- Use grassed drainage ways that can remove fertilizer before it enters streams.
- Use native plants for landscaping since they don't require as much fertilizer and water.

Physical changes to streams can prevent them from providing enough oxygen to biodegrade the materials that are naturally present. A few additional actions can address this problem:

- Maintain shade over a stream. Cooler water can hold more oxygen and retard the growth of algae. As a general rule, all stream channels suffer from some canopy removal.
- Discourage impoundments. Ponds and lakes do not aerate water. *Note: Permits may be required for any work on a stream, including impoundments.*

6.3.B.iv. Toxins and Other Materials.

Many materials enter our streams due to apathy, or lack of civility or knowledge by the public. Litter in roadside ditches, garbage bags tossed over bridge railings, paint brushes washed off over storm drains, and oil drained into ditches are all examples of pollution in streams. Some can be addressed by:

Voluntary activities

- Providing public education.
- Painting warnings on storm drains that connect to a stream (This would benefit South Mouse Creek, Cane Creek, and Oostanaula Creek).
- Sponsoring community clean-up days (This would benefit South Mouse Creek).
- Landscaping of public areas.
- Encouraging public surveillance of their streams and reporting of dumping activities to their local authorities.

Needing regulation

- Prohibition of illicit discharges to storm drains.
- Litter laws and strong enforcement at the local level.

6.3.B.v. Habitat Alteration.

The alteration of the habitat within a stream can have severe consequences. Whether it is the removal of the vegetation providing a root system network for holding soil particles together, the release of sediment, which increases the bed load and covers benthic life and fish eggs, the removal of gravel bars, “cleaning out” creeks with heavy equipment, or the impounding of the water in ponds and lakes, many alterations impair the use of the stream for designated uses. Habitat alteration also includes the draining or filling of wetlands.

Measures that can help address this problem are:

Voluntary activities

- Sponsoring litter pickup days to remove litter that might enter streams (examples: Oostanaula Creek and South Mouse Creeks).
- Organizing stream cleanups removing trash, limbs and debris before they cause blockage.
- Avoiding use of heavy equipment to “clean out” streams.
- Planting vegetation along streams to stabilize banks and provide habitat (example: tributaries of Candies Creek).
- Encouraging developers to avoid extensive culverts in streams.

Current regulations

- Restrict modification of streams by such means as culverting, lining, or impounding.
- Require mitigation for impacts to streams and wetlands when modifications are allowed.

Additional Enforcement

- Increased enforcement may be needed when violations of current regulations occur.

6.4. PERMIT REISSUANCE PLANNING

Under the *Tennessee Water Quality Control Act*, municipal, industrial and other dischargers of wastewater must obtain a permit from the Division. Approximately 1,700 permits have been issued in Tennessee under the federally delegated National Pollutant Discharge Elimination System (NPDES). These permits establish pollution control and monitoring requirements based on protection of designated uses through implementation of water quality standards and other applicable state and federal rules.

The following three sections provide specific information on municipal, industrial, and water treatment plant active permit holders in the Hiwassee River Watershed. Compliance information was obtained from EPA's Permit Compliance System (PCS). All data was queried for a five-year period between January 1, 2001 and December 31, 2006. PCS can be accessed publicly through EPA's Envirofacts website. This website provides access to several EPA databases to provide the public with information about environmental activities that may affect air, water, and land anywhere in the United States:

http://www.epa.gov/enviro/html/ef_overview.html

Stream Segment information, including designated uses and impairments, are described in detail in Chapter 3, *Water Quality Assessment of Hiwassee River Watershed*.

6.4.A. Municipal Permits

TN0024121 Cleveland Utilities Sewage Treatment Plant

Discharger rating: Minor
City: Cleveland
County: Bradley
EFO Name: Chattanooga
Issuance Date: 6/30/04
Expiration Date: 1/30/09
Receiving Stream(s): Hiwassee River Mile 15.4
HUC-12: 060200020602
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: ICEAS(TM) activated sludge process preceded by mechanical bar screening and grit removal and followed by chlorination and dechlorination. Sludge is anaerobically digested, dewatered by centrifuge and land applied.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	All Year	20	mg/L	DMax Conc	Weekdays	Composite	Effluent
Ammonia as N (Total)	All Year	2702	lb/day	DMax Load	Weekdays	Composite	Effluent
Ammonia as N (Total)	All Year	15	mg/L	MAvg Conc	Weekdays	Composite	Effluent
Ammonia as N (Total)	All Year	10	mg/L	WAvg Conc	Weekdays	Composite	Effluent
Ammonia as N (Total)	All Year	1801	lb/day	MAvg Load	Weekdays	Composite	Effluent
Bypass of Treatment (occurrences)	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
CBOD % Removal	All Year	40	Percent	DMin % Removal	Weekdays	Calculated	% Removal
CBOD % Removal	All Year	85	Percent	MAvg % Removal	Weekdays	Calculated	% Removal
CBOD5	All Year	40	mg/L	DMax Conc	Weekdays	Composite	Effluent
CBOD5	All Year	25	mg/L	DMin Conc	Weekdays	Composite	Effluent
CBOD5	All Year		mg/L	MAvg Conc	Weekdays	Composite	Influent (Raw Sewage)
CBOD5	All Year	4504	lb/day	MAvg Load	Weekdays	Composite	Effluent
CBOD5	All Year	35	mg/L	MAvg Conc	Weekdays	Composite	Effluent
CBOD5	All Year	6305	lb/day	DMax Load	Weekdays	Composite	Effluent
CBOD5	All Year		mg/L	DMax Conc	Weekdays	Composite	Influent (Raw Sewage)
D.O.	All Year	1	mg/L	DMin Conc	Daily	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Daily	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	Daily	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	Daily	Grab	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Influent (Raw Sewage)
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Influent (Raw Sewage)

Table 6-1a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
IC25 7day Ceriodaphnia Dubia	All Year	5	Percent	DMin Conc	Continuous	Composite	Effluent
IC25 7day Fathead Minnows	All Year	5	Percent	DMin Conc	Continuous	Composite	Effluent
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Settleable Solids	All Year	1	mL/L	DMax Conc	Weekdays	Composite	Effluent
Silver Total Recoverable	All Year	0.0047	mg/L	DMax Conc	Monthly	Composite	Effluent
TRC	All Year	0.4	mg/L	DMax Conc	Daily	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	Weekdays	Composite	Effluent
TSS	All Year		mg/L	DMax Conc	Weekdays	Composite	Influent (Raw Sewage)
TSS	All Year	7206	lb/day	DMax Load	Weekdays	Composite	Effluent
TSS	All Year	40	mg/L	MAvg Conc	Weekdays	Composite	Effluent
TSS	All Year	5404	lb/day	MAvg Load	Weekdays	Composite	Effluent
TSS	All Year		mg/L	MAvg Conc	Weekdays	Composite	Influent (Raw Sewage)
TSS	All Year	30	mg/L	WAv Conc	Weekdays	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	Weekdays	Calculated	% Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	Weekdays	Calculated	% Removal
pH	All Year	9	SU	DMax Conc	Daily	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Daily	Grab	Effluent

Table 6-1b. Permit Limits for Cleveland Utilities Sewage Treatment Plant.

Tables 6-1a-b. Permit Limits for Cleveland Utilities Sewage Treatment Plant.

Compliance History:

The following numbers of exceedences were noted in PCS:

- 9 Fecal Coliform
- 1 CBOD
- 9 COD
- 4 TSS
- 1 Settleable Solids
- 226 Overflows
- 14 Bypasses

Enforcement:

Agreed Order #05-0399

Notes from Database: Cleveland Utility District is not a direct part of Cleveland City Government so there will not be any discussions with the City. Cleveland is on the EPA Watch List. For the last couple of years before Fred Murphy retired from Cleveland Utilities, the EFO told him that they would likely be subject to an Order due to their continuation of overflows, even though they had an I&I Program in place. Their program was neither aggressive nor was it achieving progress for all of the effort that was occurring - they were basically point-fixing their clay pipe system.

They have had many years to fix their overflow problems. Overflows continue to occur in the same places and Cleveland Utilities has failed to abide by their NPDES Permit and place connection moratoriums on those portions of their collection system that experiences these continual overflows. Instead they continue to add more and more hook-ups without regard for system capacity.

South Mouse Creek, comprises a major portion of the Cleveland Utility Districts collection system, is an impaired stream - pathogens, siltation, toxicity, and physical substrate habitat alterations. The Pathogens TMDL for South Mouse Creek requires greater than 92% removal of pathogens to meet water quality criteria. Consequently, there are multiple reasons for Cleveland Utilities to be encouraged to be more aggressive in correcting long-standing problems with their collection system.

Bill Penny is representing the Respondents in negotiating the appeal. The negotiation process has continued for an extended period of time and the US EPA has now sent an information request (308 letter) to Cleveland Utilities requiring information by the end of January 2006 or EPA will consider taking enforcement action.

Resolved as AO 05-0399 on 1/24/06 and entered at Secretary of State's Office on 1/25/06.

CAP received on 4/26/06.

The Municipal Facilities Section sent a letter to Cleveland on 5/12/06 stating that CAP/ER lacks some of the elements in the Order.

Received MOMs Program from Cleveland on 6/22/06.

Received publisher's affidavit for public review and comment of SORP Section XVI, Paragraph 6(a) of Order on 08/15/06.

EFO Comments:

The Plant itself is in great shape. The collection system is the problem. They have built an Equalization Tank to handle some of the overflow issues.

TN0024201 AUB-Oostanaula Creek Sewage Treatment Plant

Discharger rating: Minor
City: Athens
County: McMinn
EFO Name: Chattanooga
Issuance Date: 10/31/03
Expiration Date: 5/31/07
Receiving Stream(s): Oostanaula Creek Mile 30.1
HUC-12: 060200020702
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: "oxidation ditch" activated sludge process (a form of extended aeration activated sludge) with tertiary filtration and post aeration

Segment	TN06020002083_3000
Name	Oostanaula Creek
Size	7.4
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Livestock Watering and Wildlife (Supporting), Fish and Aquatic Life (Non-Supporting), Recreation (Non-Supporting), Irrigation (Supporting)
Causes	Escherichia coli, Phosphate, Sedimentation/Siltation
Sources	Municipal Point Source Discharges, Discharges from Municipal Separate Storm Sewer Systems (MS4)

Table 6-2. Stream Segment Information for AUB-Oostanaula Creek Sewage Treatment Plant.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
48hr LC50: Ceriodaphnia Dubia	All Year	100	Percent	DMin Conc	Quarterly	Grab	Effluent
48hr LC50: Fathead Minnows	All Year	100	Percent	DMin Conc	Quarterly	Grab	Effluent
Ammonia as N (Total)	Summer	4	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	71	lb/day	DMax Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	2	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	47	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	3	mg/L	MAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	9	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	160	lb/day	DMax Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	4.5	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	106	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	6.8	mg/L	MAvg Conc	3/Week	Composite	Effluent
Bypass of Treatment (occurrences)	All Year		Occurrences/Month	MAvg Load	Continuous	Visual	Wet Weather
CBOD % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
CBOD % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
CBOD5	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
CBOD5	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)

Table 6-3a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
CBOD5	Summer	25	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Summer	354	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Summer	472	lb/day	DMax Load	3/Week	Composite	Effluent
CBOD5	Summer	20	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Summer	15	mg/L	DMin Conc	3/Week	Composite	Effluent
CBOD5	Winter	40	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Winter	35	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	590	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	826	lb/day	DMax Load	3/Week	Composite	Effluent
CBOD5	Winter	25	mg/L	DMin Conc	3/Week	Composite	Effluent
D.O.	All Year	6	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	3/Week	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Influent (Raw Sewage)
Flow	All Year		MGD	DMax Load	Daily	Continuous	Influent (Raw Sewage)
Nitrogen Total (as N)	All Year		mg/L	DMax Conc	2/Week	Composite	Effluent
Nitrogen Total (as N)	All Year	336	lb/day	MAvg Load	2/Week	Composite	Effluent
Nitrogen Total (as N)	All Year		mg/L	MAvg Conc	2/Week	Composite	Effluent
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Phosphorus, Total	All Year		mg/L	DMax Conc	2/Week	Composite	Effluent
Phosphorus, Total	All Year		mg/L	MAvg Conc	2/Week	Composite	Effluent
Phosphorus, Total	All Year	184	lb/day	MAvg Load	2/Week	Composite	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	3/Week	Composite	Effluent
TRC	All Year	0.04	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	944	lb/day	DMax Load	3/Week	Composite	Effluent
TSS	All Year	40	mg/L	MAvg Conc	3/Week	Composite	Effluent
TSS	All Year	709	lb/day	MAvg Load	3/Week	Composite	Effluent
TSS	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	30	mg/L	WAvg Conc	3/Week	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-3b.

Tables 6-3a-b. Permit Limits for AUB-Oostanaula Creek Sewage Treatment Plant.

Compliance History:

The following numbers of exceedences were noted in PCS:

- 137 Overflows
- 159 Bypasses

EFO Comments:

Modification of the municipal wastewater treatment facility permit from 2.83 to 6.0 MGD. This is a brand new plant – in great shape. The collection system has serious issues. Several pump stations are in need of repair.

TN0025470 Niota Sewage Treatment Plant

Discharger rating: Minor
City: Niota
County: McMinn
EFO Name: Chattanooga
Issuance Date: 7/31/02
Expiration Date: 7/31/07
Receiving Stream(s): Little North Mouse Creek mile 3.5
HUC-12: 060200020801
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Biological treatment of domestic wastewater

Segment	TN06020002084_0500
Name	Dry Valley Creek
Size	13.3
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Fish and Aquatic Life (Not Assessed), Livestock Watering and Wildlife (Not Assessed), Recreation (Not Assessed), Irrigation (Not Assessed)
Causes	N/A
Sources	N/A

Table 6-4. Stream Segment Information for Niota Sewage Treatment Plant.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	All Year	7	mg/L	DMax Conc	3/Week	Composite	
Ammonia as N (Total)	All Year	18	lb/day	DMax Load	3/Week	Composite	
Ammonia as N (Total)	All Year	5.3	mg/L	MAvg Conc	3/Week	Composite	
Ammonia as N (Total)	All Year	3.5	mg/L	WAvg Conc	3/Week	Composite	
Ammonia as N (Total)	All Year	12	lb/day	MAvg Load	3/Week	Composite	
Ammonia as N (Total)	Summer	4	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	3	mg/L	MAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	6.7	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	2	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	10	lb/day	DMax Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	7	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	18	lb/day	DMax Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	3.5	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	12	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	5.3	mg/L	MAvg Conc	3/Week	Composite	Effluent
Bypass of Treatment (occurrences)	All Year		Occurrences/Month	MAvg Load	Continuous	Visual	Wet Weather
CBOD % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
CBOD % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
CBOD5	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)

Table 6-5a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
CBOD5	All Year	83	lb/day	MAvg Load	3/Week	Composite	
CBOD5	All Year	40	mg/L	DMax Conc	3/Week	Composite	
CBOD5	All Year	25	mg/L	DMin Conc	3/Week	Composite	
CBOD5	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
CBOD5	All Year	35	mg/L	MAvg Conc	3/Week	Composite	
CBOD5	All Year	117	lb/day	DMax Load	3/Week	Composite	
CBOD5	Summer	35	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Summer	83	lb/day	DMax Load	3/Week	Composite	Effluent
CBOD5	Summer	20	mg/L	DMin Conc	3/Week	Composite	Effluent
CBOD5	Summer	67	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Summer	25	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	40	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Winter	35	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	83	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	25	mg/L	DMin Conc	3/Week	Composite	Effluent
CBOD5	Winter	117	lb/day	DMax Load	3/Week	Composite	Effluent
D.O.	All Year	5	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	3/Week	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Influent (Raw Sewage)
Flow	All Year		MGD	DMax Load	Daily	Continuous	Influent (Raw Sewage)
IC25 7day Ceriodaphnia Dubia	All Year	100	Percent	DMin Conc	Continuous	Composite	Effluent
IC25 7day Fathead Minnows	All Year	100	Percent	DMin Conc	Continuous	Composite	Effluent
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Settleable Solids	All Year	1	mL/L	DMax Conc	3/Week	Composite	Effluent
TRC	All Year	0.03	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	133	lb/day	DMax Load	3/Week	Composite	Effluent
TSS	All Year	40	mg/L	MAvg Conc	3/Week	Composite	Effluent
TSS	All Year	100	lb/day	MAvg Load	3/Week	Composite	Effluent
TSS	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	30	mg/L	WAvg Conc	3/Week	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	%Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	%Removal
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-5b.

Tables 6-5a-b. Permit Limits on Niota Sewage Treatment Plant.

Compliance History:

The following numbers of exceedences were noted in PCS:

- 1 pH
- 2 TSS
- 2 CBOD
- 2 Ammonia
- 3 % Suspended Solids Removal
- 6 Overflows
- 10 Bypasses

EFO Comments:

No serious issues at this plant.

TN0028886 Athens Ramada Inn

Discharger rating: Minor
City: Athens
County: McMinn
EFO Name: Chattanooga
Issuance Date: 7/31/02
Expiration Date: 6/30/07
Receiving Stream(s): Mile 0.6 of Liberty Branch which enters North Mouse Creek at mile 30.8
HUC-12: 060200020801
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Extended aeration

Segment	TN06020002084_1000
Name	North Mouse Creek
Size	38.36
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Fish and Aquatic Life (Supporting), Recreation (Non-Supporting), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Escherichia coli
Sources	Discharges from Municipal Separate Storm Sewer Systems (MS4), Grazing in Riparian or Shoreline Zones

Table 6-6. Stream Segment Information for Athens Ramada Inn.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	All Year	10	mg/L	DMax Conc	2/Month	Grab	Effluent
Ammonia as N (Total)	All Year	5	mg/L	MAvg Conc	2/Month	Grab	Effluent
BOD5	All Year	45	mg/L	DMax Conc	2/Month	Grab	Effluent
BOD5	All Year	30	mg/L	MAvg Conc	2/Month	Grab	Effluent
D.O.	All Year	3	mg/L	DMin Conc	Weekdays	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	2/Month	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	0.5	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	2/Month	Grab	Effluent
TSS	All Year	30	mg/L	MAvg Conc	2/Month	Grab	Effluent
pH	All Year	8.5	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-7. Permit Limits for Athens Ramada Inn.

EFO Comments:

Tiny package plant. No issues.

TN0029122 Bachman Academy

Discharger rating: Minor
City: McDonald
County: Bradley
EFO Name: Chattanooga
Issuance Date: 5/31/02
Expiration Date: 5/31/07
Receiving Stream(s): Overland flow 600 feet to mile 0.4 of unnamed tributary to Brymer Creek at mile 0.3
HUC-12: 060200020902
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Activated sludge

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD5	All Year	45	mg/L	DMax Conc	Monthly	Grab	Effluent
D.O.	All Year	3	mg/L	DMin Conc	Weekdays	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	Monthly	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	2	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-8. Permit Limits for Bachman Academy.

EFO Comments:

EFO noticed suspicious numbers on Monthly Operating Reports (MORs). Site inspection revealed a small package plant in bad condition. Gate was wide open, blackberry bushes growing in the treatment area, rotted out boards, and fence was down. EFO sent an NOV, Operator was dismissed and the plant was taken over temporarily by Cleveland STP (Mike Ward). The plant has been cleaned up since.

TN0029483 E. K. Baker School

Discharger rating: Minor
City: Athens
County: McMinn
EFO Name: Chattanooga
Issuance Date: 10/31/02
Expiration Date: 10/31/07
Receiving Stream(s): Spring Creek at mile18.7
HUC-12: 060200020803
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Extended aeration

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
TSS	All Year	45	mg/L	DMax Conc	2/Month	Grab	Effluent
TSS	All Year	30	mg/L	MAvg Conc	2/Month	Grab	Effluent

Table 6-9. Permit Limits for E.K. Baker School

EFO Comments:

No issues.

TN0029491 Riceville Elementary School

Discharger rating: Minor
City: Riceville
County: McMinn
EFO Name: Chattanooga
Issuance Date: 10/31/02
Expiration Date: 10/31/07
Receiving Stream(s): Unnamed tributary at mile 0.3 to Dry Valley Branch at mile 5.4
HUC-12: 060200020702
Effluent Summary: treated domestic wastewater from Outfall 001
Treatment system: Activated sludge

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
TSS	All Year	45	mg/L	DMax Conc	2/Month	Grab	Effluent
TSS	All Year	30	mg/L	MAvg Conc	2/Month	Grab	Effluent

Table 6-10. Permit Limits for Riceville Elementary School.

EFO Comments:

Poorly operated, small Package Plant. They have received a grant to connect a sewer line to AUB.

TN0054828 Calhoun School

Discharger rating: Minor
City: Calhoun
County: McMinn
EFO Name: Chattanooga
Issuance Date: 10/31/02
Expiration Date: 10/10/07
Receiving Stream(s): Hiwassee River at mile 19.1
HUC-12: 060200020601
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Extended aeration plant

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
TSS	All Year	45	mg/L	DMax Conc	2/Month	Grab	Effluent
TSS	All Year	30	mg/L	MAvg Conc	2/Month	Grab	Effluent

Table 6-11. Permit Limits for Calhoun School.

EFO Comments:

No Issues.

TN0021938 Englewood Sewage Treatment Plant

Discharger rating: Major
City: Englewood
County: McMinn
EFO Name: Chattanooga
Issuance Date: 5/31/02
Expiration Date: 5/31/07
Receiving Stream(s): Chestuee Creek Mile 42.4
HUC-12: 060200020501
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Extended aeration plant

Segment	TN06020002082_2000
Name	Chestuee Creek
Size	17.9
Unit	Miles
First Year on 303(d) List	2002
Designated Uses	Fish and Aquatic Life (Not Assessed), Livestock Watering and Wildlife (Supporting), Recreation (Non-Supporting), Irrigation (Supporting)
Causes	Escherichia coli
Sources	Grazing in Riparian or Shoreline Zones

Table 6-12. Stream Segment Information for Englewood Sewage Treatment Plant.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD % removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
BOD % removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
BOD5	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
BOD5	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
BOD5	All Year	83	lb/day	DMax Load	3/Week	Composite	Effluent
BOD5	All Year	40	mg/L	MAvg Conc	3/Week	Composite	Effluent
BOD5	All Year	63	lb/day	MAvg Load	3/Week	Composite	Effluent
BOD5	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
BOD5	All Year	30	mg/L	WAvg Conc	3/Week	Composite	Effluent
Bypass of Treatment (occurrences)	All Year		Occurrences/Month	MAvg Load	Continuous	Visual	Wet Weather
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	3/Week	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Influent (Raw Sewage)
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Influent (Raw Sewage)

Table 6-13a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Settleable Solids	All Year	1	mL/L	DMax Conc	3/Week	Composite	Effluent
TRC	All Year	0.3	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year	63	lb/day	MAvg Load	3/Week	Composite	Effluent
TSS	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	83	lb/day	DMax Load	3/Week	Composite	Effluent
TSS	All Year	30	mg/L	WAvg Conc	3/Week	Composite	Effluent
TSS	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	40	mg/L	MAvg Conc	3/Week	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-13b.

Tables 6-13a-b. Permit Limits for Englewood Sewage Treatment Plant.

Compliance History:

The following numbers of exceedences were noted in PCS:

- 6 BOD
- 5 pH
- 9 % of Suspended Solids Removal
- 1 Fecal Coliform
- 2 Chlorine
- 2 Suspended Solids
- 18 Overflows
- 1 Bypass

Enforcement:

Database notes:

01/27/05--Effluent problems as well as management and maintenance problems resulting in visible plume in receiving stream. No penalty assessed.

Received CAP/ER on 9/23/05.

On 10/27/05, Municipal Facilities Section sent Englewood a letter approving the CAP/ER. The contingency dates will be set accordingly.

02/07/06 -- Received letter dated 01/30/06 from Englewood in appreciation of 01/27/06 assistance meeting with WPC staff and Englewood officials; letter contains proposal for plant improvements.

EFO Comments:

Plant Operator has STP in good shape now. Collection system has problems.

TN0023396 Cumberland Mobile Home Park

Discharger rating: Minor
City: Englewood
County: McMinn
EFO Name: Chattanooga
Issuance Date: 11/27/02
Expiration Date: 11/30/07
Receiving Stream(s): Unnamed tributary at mile 0.8 to Chestuee Creek at mile 35.5
HUC-12: 060200020503
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Activated sludge

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	Summer	4	mg/L	DMax Conc	Monthly	Grab	Effluent
Ammonia as N (Total)	Winter	10	mg/L	DMax Conc	Monthly	Grab	Effluent
BOD5	All Year	20	mg/L	DMax Conc	Monthly	Grab	Effluent
D.O.	All Year	6	mg/L	DMin Conc	Weekdays	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	Monthly	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	2	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Tables 6-14. Permit Limits for Cumberland Mobile Home Park.

EFO Comments:

No issues.

TN0067539 AUB- North Mouse Creek Sewage Treatment Plant

Discharger rating: Minor
City: Athens
County: McMinn
EFO Name: Chattanooga
Issuance Date: 4/30/02
Expiration Date: 4/30/07
Receiving Stream(s): North Mouse Creek at mile 24.7
HUC-12: 060200020802
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: WAS to thickener to anaerobic digester

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	Summer	4	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	30	lb/day	DMax Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	3	mg/L	MAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	2	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	20	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	6	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	30	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	45	lb/day	DMax Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	3	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	4.5	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
CBOD % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
CBOD5	Summer	21	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Summer	12.5	mg/L	DMin Conc	3/Week	Composite	Effluent
CBOD5	Summer	170	lb/day	DMax Load	3/Week	Composite	Effluent
CBOD5	Summer	17	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Summer	125	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	34	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Winter	200	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	27	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	270	lb/day	DMax Load	3/Week	Composite	Effluent
CBOD5	Winter	20	mg/L	DMin Conc	3/Week	Composite	Effluent
D.O.	All Year	6	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	3/Week	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
IC25 7day Ceriodaphnia Dubia	All Year	52.6	Percent	DMin Conc	Quarterly	Composite	Effluent
IC25 7day Fathead Minnows	All Year	52.6	Percent	DMin Conc	Quarterly	Composite	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year	400	lb/day	DMax Load	3/Week	Composite	Effluent
TSS	All Year	30	mg/L	WAvg Conc	3/Week	Composite	Effluent

Table 6-15a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
TSS	All Year	300	lb/day	MAvg Load	3/Week	Composite	Effluent
TSS	All Year	40	mg/L	MAvg Conc	3/Week	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-15b.

Tables 6-15a-b. Permit Limits for AUB- North Mouse Creek STP.

Compliance History:

The following numbers of exceedences were noted in PCS:

- 23 Overflows
- 9 Bypasses

EFO Comments:

Beautiful, well-maintained, clean plant.

TN0067555 Rogers Creek Elementary School

Discharger rating: Minor
City: Athens
County: McMinn
EFO Name: Chattanooga
Issuance Date: 9/30/02
Expiration Date: 9/30/07
Receiving Stream(s): Rogers Creek at mile 12.5
HUC-12: 060200020604
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Septic tank and recirculating sand filter

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD5	All Year	45	mg/L	DMax Conc	2/Month	Grab	Effluent
BOD5	All Year	30	mg/L	MAvg Conc	2/Month	Grab	Effluent
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	2/Month	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	2	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	2/Month	Grab	Effluent
TSS	All Year	30	mg/L	MAvg Conc	2/Month	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-16. Permit Limits for Rogers Creek Elementary School.

EFO Comments:

No issues.

TN0056561 Blue Springs Elementary School

Discharger rating: Minor
City: Cleveland
County: Bradley
EFO Name: Chattanooga
Issuance Date: 10/31/02
Expiration Date: 9/30/07
Receiving Stream(s): Blue Springs Branch at mile 1.1 to unnamed tributary to Black Fox Creek to Candies Creek
HUC-12: 060200020902
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Extended aeration

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
TSS	All Year	45	mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year	30	mg/L	MAvg Conc	Monthly	Grab	Effluent

Table 6-17. Permit Limits for Blue Springs Elementary School.

EFO Comments:

None.

TN0063771 Etowah Sewage Treatment Plant

Discharger rating: Major
City: Etowah
County: McMinn
EFO Name: Chattanooga
Issuance Date: 5/31/03
Expiration Date: 5/30/08
Receiving Stream(s): Conasauga Creek at mile 8.0
HUC-12: 060200020402
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: WAS to aerobic digester to drying beds to landfill

Segment	TN06020002081_1000
Name	Conasauga Creek
Size	33.99
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Recreation (Supporting), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting), Fish and Aquatic Life (Non-Supporting)
Causes	Sedimentation/Siltation
Sources	Discharges from Municipal Separate Storm Sewer Systems (MS4), Grazing in Riparian or Shoreline Zones

Table 6-18. Stream Segment Information for Etowah Sewage Treatment Plant.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	Summer	15	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	75	lb/day	DMax Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	7.5	mg/L	MAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	5	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	50	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter		mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter		mg/L	WAvg Conc	3/Week	Composite	Effluent
CBOD % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
CBOD % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
CBOD5	All Year	40	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	All Year	35	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	All Year	250	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	All Year	25	mg/L	DMin Conc	3/Week	Composite	Effluent
CBOD5	All Year	350	lb/day	DMax Load	3/Week	Composite	Effluent
D.O.	All Year	6	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year		#/100mL	DMax Conc	3/Week	Grab	Effluent
E. coli	All Year		#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	3/Week	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
IC25 7day Ceriodaphnia Dubia	All Year	12	Percent	DMin Conc	Quarterly	Composite	Effluent

Table 6-19a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
IC25 7day Fathead Minnows	All Year	12	Percent	DMin Conc	Quarterly	Composite	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	3/Week	Composite	Effluent
TRC	All Year	0.17	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year	400	lb/day	DMax Load	3/Week	Composite	Effluent
TSS	All Year	30	mg/L	WAvg Conc	3/Week	Composite	Effluent
TSS	All Year	300	lb/day	MAvg Load	3/Week	Composite	Effluent
TSS	All Year	40	mg/L	MAvg Conc	3/Week	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-19b.

Table 6-19a-b. Permit Limits for Etowah Sewage Treatment Plant.

Compliance History:

The following numbers of exceedences were noted in PCS:

- 18 TSS
- 2 Settleable Solids
- 10 Chlorine
- 4 Suspended Solids.
- 5 Overflows
- 1 Bypass

EFO Comments:

No issues.

6.4.B. Industrial Permits

TN0001996 J.M. Huber Corporation

Discharger rating: Minor
City: Etowah
County: McMinn
EFO Name: Chattanooga
Issuance Date: 7/31/04
Expiration Date: 3/30/07
Receiving Stream(s): Wet weather conveyance at mile 1.0 to Conasauga Creek at mile 10.7
HUC-12: 060200020402
Effluent Summary: Treated non-contact cooling water, evaporative recovery, process wastewater, stormwater, condensate, and contact cooling water from Outfall 001
Treatment system: Settling, coagulation, multimedia filtration, neutralization.

Segment	TN06020002081_1000
Name	Conasauga Creek
Size	33.99
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Recreation (Supporting), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting), Fish and Aquatic Life (Non-Supporting)
Causes	Sedimentation/Siltation
Sources	Discharges from Municipal Separate Storm Sewer Systems (MS4), Grazing in Riparian or Shoreline Zones

Table 6-20. Stream Segment Information for J.M. Huber Corporation.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Al (T)	All Year	3.95	mg/L	DMax Conc	2/Month	Composite	Effluent
Al (T)	All Year		mg/L	MAvg Conc	2/Month	Composite	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
IC25 7day Ceriodaphnia Dubia	All Year	6.5	Percent	DMin Conc	Semi-annually	Composite	Effluent
IC25 7day Fathead Minnows	All Year	6.5	Percent	DMin Conc	Semi-annually	Composite	Effluent
Oil and Grease (Freon EM)	All Year	15	mg/L	DMax Conc	2/Month	Grab	Effluent
Sulfate (T)	All Year	20000	lb/day	DMax Load	Daily	Composite	Effluent
Sulfate (T)	All Year	17500	lb/day	MAvg Load	Daily	Composite	Effluent
TSS	All Year	40	mg/L	DMax Conc	Daily	Composite	Effluent
TSS	All Year	30	mg/L	MAvg Conc	Daily	Composite	Effluent
pH	All Year	9	SU	DMax Conc	Daily	Continuous	Effluent
pH	All Year	6	SU	DMin Conc	Daily	Continuous	Effluent

Table 6-21. Permit Limits for J.M. Huber Corporation.

Enforcement:

Case # 05-0040

Database Notes: Violation of NPDES permit protocol. Sampling, reporting, etc.. Utilized self-policing and voluntary disclosure policy.

Received correspondence dated 09/24/04, regarding 09/2004 discharge and ethics policy literature.

Received notification of TRE/TIE initiated on Outfall 001 on 11/3/05.

OGC is still in negotiations on the Huber case and are awaiting federal action.

Comments:

Production of silica and silicates (sodium aluminosilicates, silicon dioxides, and hydrotalcite) for use as food additives and for rubber, plastics, wire and cable applications. An upgrade of the WWTS proposed in Fall 2005, with construction date of 12/05. Improved effluent quality, but Outfall location and nature of discharge unchanged; therefore, permit modification not required

TN0076015 Waupaca Foundry, Inc. - Plant #6

Discharger rating: Minor
City: Etowah
County: McMinn
EFO Name: Chattanooga
Issuance Date: 9/30/02
Expiration Date: 9/30/07
Receiving Stream(s): Crockett Springs Branch to Cane Creek
HUC-12: 060200020402
Effluent Summary: Noncontact-cooling water from Outfall 001 and storm water runoff from Outfalls SW1 and SW2
Treatment system: None

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Flow	All Year		MGD	MAvg Load	Monthly	Instantaneous	Effluent
IC25 7day Ceriodaphnia Dubia	All Year	100	Percent	DMin Conc	Monthly	Composite	Effluent
IC25 7day Fathead Minnows	All Year	100	Percent	DMin Conc	Monthly	Composite	Effluent
Oil and Grease (Freon EM)	All Year	15	mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year	40	mg/L	DMax Conc	Monthly	Grab	Effluent
Temperature (°C)	All Year		°C	DMax Conc	Monthly	Grab	Effluent
Temperature (°C)	All Year		°C	DMax Conc	Monthly	Grab	Effluent
Temperature (°C)	All Year		°C	MAvg Conc	Monthly	Grab	Effluent
Temperature (°C)	All Year		°C	MAvg Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-22. Permit Limits for Waupaca Foundry, Inc. - Plant #6

Compliance History:

None noted in PCS.

EFO Comments:

Producer of gray and ductile iron castings. A 'greenfield' operation. Facility sends wastewater through pretreatment to Etowah STP.

TN0002461 Olin Corporation

Discharger rating: Major
City: Charleston
County: Bradley
EFO Name: Chattanooga
Issuance Date: 12/31/03
Expiration Date: 10/31/07
Receiving Stream(s): Hiwassee River at mile 15.8 (Outfall 001) and mile 16.7 (Outfall 003)
HUC-12: 060200020602
Effluent Summary: Sanitary wastewater (IMP 01A), process wastewater, miscellaneous non-process wastewater, and storm water runoff (Outfall 001), and combined non-contact cooling water and storm water runoff (Outfall 003)
Treatment system: None

Segment	TN06020002008_1000
Name	Hiwassee River
Size	7.7
Unit	Miles
First Year on 303(d) List	1992
Designated Uses	Livestock Watering and Wildlife (Supporting), Irrigation (Supporting), Recreation (Non-Supporting), Fish and Aquatic Life (Supporting), Domestic Water Supply (Supporting), Industrial Water Supply (Supporting)
Causes	Escherichia coli
Sources	Grazing in Riparian or Shoreline Zones, Sanitary Sewer Overflows (Collection System Failures)

Table 6-23. Stream Segment Information for Olin Corporation

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
% of time exceeding pH limits	All Year	1	Percent	DMax Conc	Monthly	Calculated	Effluent
Dissolved Solids, Total (TDS)	All Year	60000	mg/L	DMax Conc	Daily	Composite	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	2/Month	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	2/Month	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	2/Month	Grab	Effluent
Flow	All Year		MGD	DMax Load	Continuous	Recorder	Effluent
Flow	All Year		MGD	MAvg Load	Continuous	Recorder	Effluent
Hg (T)	All Year	0.511	mg/L	DMax Conc	Daily	Composite	Effluent
Hg (T)	All Year	0.018	mg/L	MAvg Conc	Daily	Composite	Effluent
Hg (T)	All Year	0.13	lb/day	MAvg Load	Daily	Composite	Effluent
Hg (T)	All Year	0.15	lb/day	MAvg Load	Daily	Composite	Effluent
Hg (T)	All Year	0.018	mg/L	MAvg Conc	Daily	Composite	Effluent
Hg (T)	All Year	0.35	lb/day	DMax Load	Daily	Composite	Effluent

Table 6-24a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Hg (T)	All Year	0.511	mg/L	DMax Conc	Daily	Composite	Effluent
Hg (T)	All Year	0.31	lb/day	DMax Load	Daily	Composite	Effluent
Length of Longest pH Excursion	All Year	60	Minutes	DMax Conc	Monthly	Calculated	Effluent
Production divided by days operated in month	All Year		lb/day	MAvg Load	Monthly	Calculated	Effluent
TRC	All Year	1.838	mg/L	DMax Conc	Daily	Grab	Effluent
TRC	All Year	1.064	mg/L	MAvg Conc	Daily	Grab	Effluent
TRC	All Year	2.53	lb/day	MAvg Load	Daily	Grab	Effluent
TRC	All Year	2.85	lb/day	MAvg Load	Daily	Grab	Effluent
TRC	All Year	1.064	mg/L	MAvg Conc	Daily	Grab	Effluent
TRC	All Year	4.8	lb/day	DMax Load	Daily	Grab	Effluent
TRC	All Year	1.838	mg/L	DMax Conc	Daily	Grab	Effluent
TRC	All Year	4.26	lb/day	DMax Load	Daily	Grab	Effluent
TSS	All Year		mg/L	DMax Conc	Daily	Composite	Effluent
TSS	All Year		mg/L	DMax Conc	Daily	Composite	Effluent
TSS	All Year	851	lb/day	DMax Load	Daily	Composite	Effluent
TSS	All Year	960	lb/day	DMax Load	Daily	Composite	Effluent
TSS	All Year		mg/L	MAvg Conc	Daily	Composite	Effluent
TSS	All Year	480	lb/day	MAvg Load	Daily	Composite	Effluent
TSS	All Year	426	lb/day	MAvg Load	Daily	Composite	Effluent
TSS	All Year		mg/L	MAvg Conc	Daily	Composite	Effluent
pH	All Year	9	SU	DMax Conc	Continuous	Recorder	Effluent
pH	All Year	6	SU	DMin Conc	Continuous	Recorder	Effluent

Table 6-24b.

Tables 6-24a-b. Permit Limits for Olin Corporation.

EFO Comments:

Alkalies and Chlorine (2812) and Industrial Inorganic Chemicals (2819). No issues.

2/21/07 - Olin operates in compliance with mercury permit (Daily Banner)

Olin Chlor-Alkali spent \$7.6 million dollars in the past two years and \$54 million in the last eight years in capital improvements for personnel and environmental safety programs at the company's Charleston plant. "The capital improvement projects include \$2.6 million in new emission-control equipment to further reduce mercury emissions, which have already fallen 87 percent since 1987," plant manager Tom Tirabassi said recently during a meeting of the Community Advisory Panel. "Our company has a strong commitment to the modernization of the facility and technology." The Community Advisory Panel is a cross-section of community members and Olin representatives. The panel meets monthly to discuss plant operations, environmental concerns, safety, emergency preparedness, community involvement and other important issues. Tisha Calabrese-Benton, deputy communications director of Tennessee Department of Environment and Conservation, said the Charleston plant operates under permits regulating emissions into the air and into the Hiwassee River.

http://www.clevelandbanner.com/NF/omf/daily_banner/news_story.html?rkey=0064649+cr=gdn

TN0030155 TVA Apalachia Hydro Plant

Discharger rating:	Minor
City:	Farner
County:	Polk
EFO Name:	Chattanooga
Issuance Date:	6/30/02
Expiration Date:	6/30/07
Receiving Stream(s):	Hiwassee River at mile 53.6
HUC-12:	060200020301
Effluent Summary:	Cooling water from Outfall 001
Treatment system:	None

Permit Limits:

No Limits in Permstat.

Comments:

Electric services

TN0042064 Johns Manville

Discharger rating: Minor
City: Etowah
County: McMinn
EFO Name: Chattanooga
Issuance Date: 8/30/02
Expiration Date: 8/30/07
Receiving Stream(s): Crockett Spring Branch at mile 1.2
HUC-12: 060200020402
Effluent Summary: Treated process wastewater, non-process wastewater, and treated landfill leachate
Treatment system: -

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	Summer	4.2	mg/L	DMax Conc	2/Week	Composite	Effluent
Ammonia as N (Total)	Summer	2.1	mg/L	MAvg Conc	2/Week	Composite	Effluent
Ammonia as N (Total)	Winter	8.2	mg/L	DMax Conc	2/Week	Composite	Effluent
Ammonia as N (Total)	Winter	4.1	mg/L	MAvg Conc	2/Week	Composite	Effluent
BOD5	All Year	45	mg/L	DMax Conc	2/Week	Composite	Effluent
BOD5	All Year	37.5	lb/day	DMax Load	2/Week	Composite	Effluent
BOD5	All Year	30	mg/L	MAvg Conc	2/Week	Composite	Effluent
BOD5	All Year	25	lb/day	MAvg Load	2/Week	Composite	Effluent
Cu (T)	Winter	0.1	mg/L	DMax Conc	2/Month	Composite	Effluent
Cu (T)	Winter	0.06	mg/L	MAvg Conc	2/Month	Composite	Effluent
D.O.	Winter	5	mg/L	DMin Conc	3/Week	Grab	Effluent
Flow	Winter		MGD	DMax Load	Weekly	Instantaneous	Effluent
Flow	Winter		MGD	MAvg Load	Weekly	Instantaneous	Effluent
IC25 7day Ceriodaphnia Dubia	All Year	49	Percent	DMin Conc	Continuous	Composite	Effluent
IC25 7day Fathead Minnows	All Year	49	Percent	DMin Conc	Continuous	Composite	Effluent
TSS	All Year	40	mg/L	DMax Conc	2/Week	Composite	Effluent
TSS	All Year	33.4	lb/day	DMax Load	2/Week	Composite	Effluent
pH	All Year	9	SU	DMax Conc	3/Week	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	3/Week	Grab	Effluent

Table 6-25. Permit Limits for Johns Manville.

Compliance History:

None noted in PCS.

Comments:

Fiberglass mat is manufactured for the roofing industry. This facility sends its wastewater through pretreatment to Etowah STP. Keeping their permit active as an option if necessary.

TN0002356 Bowater Newsprint Calhoun Operations

Discharger rating: Minor
City: Calhoun
County: McMinn
EFO Name: Chattanooga
Issuance Date: 8/15/02
Expiration Date: 6/30/07
Receiving Stream(s): Hiwassee River at mile 16.5 and 15.0 (Outfalls 001 and 006, respectively), the Hiwassee River at mile 18.1 (Outfall 003), and the Hiwassee River at miles 18.1 and 22.7 (Outfalls 004 & 005, respectively)
HUC-12: 060200020602
Effluent Summary: Treated process wastewater (Internal Monitoring Points 01A and 01B), treated domestic wastewater (Internal Monitoring Point 02A), coal pile runoff, and storm water runoff from Outfalls 001 and 006, noncontact cooling water from Outfall 003, and traveling screen filter backwash and pump cooling water through Outfalls 004 and 005
Treatment system: Neutralization, primary clarification, stabilization, sludge lagoons, aerated lagoons, screw presses and landfill

Segment	TN06020002008_2000
Name	Hiwassee River
Size	5.5
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Fish and Aquatic Life (Supporting), Recreation (Supporting), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	N/A
Sources	N/A

Table 6-26. Stream Segment Information for Bowater Newsprint Calhoun Operations.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Adsorbable Organic Halides (AOX)	All Year	2176	lb/day	DMax Load	Daily	Grab or Composite	Effluent
Adsorbable Organic Halides (AOX)	All Year	1425	lb/day	MAvg Load	Daily	Grab or Composite	Effluent
Ammonia as N (Total)	All Year	20	mg/L	DMax Conc	Weekly	Composite	Effluent
Ammonia as N (Total)	All Year	10	mg/L	MAvg Conc	Weekly	Composite	Effluent
BOD5	All Year	56551	lb/day	DMax Load	Daily	Composite	Effluent
BOD5	All Year	29670	lb/day	MAvg Load	Daily	Composite	Effluent
Color (Pt-Co Units)	All Year	40	Pt-Co Units	DMax Conc	See Permit	Grab	Effluent
Dilution Ratio for Effluent	All Year	5	Percent	DMax Conc	Daily	Calculated	Effluent
Dioxin	All Year	36	pg/L	DMax Conc	Annually	Composite	Effluent
Dioxin	All Year	36	pg/L	MAvg Conc	Annually	Composite	Effluent

Table 6-27a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Dissolved Solids, Total (TDS)	All Year	9968	mg/L	DMax Conc	Daily	Composite	Effluent
Dissolved Solids, Total (TDS)	All Year	10000	lb/day	DMax Load	Daily	Composite	Effluent
Fecal Coliform	All Year		#/100mL	DMax Conc	Weekly	Grab	Effluent
Fecal Coliform	All Year		#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Flow	All Year		MGD	DMax Load	Continuous	Recorder	Effluent
Flow	All Year		MGD	MAvg Load	Continuous	Recorder	Effluent
IC25 7day Ceriodaphnia Dubia	All Year	5	Percent	DMin Conc	Monthly	Composite	Effluent
IC25 7day Fathead Minnows	All Year	5	Percent	DMin Conc	Monthly	Composite	Effluent
Stream Flow Instantaneous	All Year		MGD	DMax Load	Continuous	Recorder	Effluent
TSS	All Year	95541	lb/day	DMax Load	Daily	Composite	Effluent
TSS	All Year	57436	lb/day	MAvg Load	Daily	Composite	Effluent
pH	All Year	9	SU	DMax Conc	Daily	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Daily	Grab	Effluent

Table 6-27b.

Table 6-27a-b. Permit Limits for Outfall 001 at Bowater Newsprint Calhoun Operations.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Flow	All Year		MGD	DMax Load	Continuous	Recorder	Effluent
Flow	All Year		MGD	MAvg Load	Continuous	Recorder	Effluent
Temperature (°C)	All Year		°C	DMax Conc	Continuous	Recorder	Effluent
pH	All Year	9	SU	DMax Conc	Daily	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Daily	Grab	Effluent

Table 6-28. Permit Limits for Outfall 003 at Bowater Newsprint Calhoun Operations.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Oil and Grease (Freon EM)	All Year	15	mg/L	DMax Conc	Monthly	Grab	Effluent
Temperature (°C)	All Year		Deg. C	DMax Conc	Monthly	Grab	Effluent

Table 6-29. Permit Limits for Outfall 004 at Bowater Newsprint Calhoun Operations.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Oil and Grease (Freon EM)	All Year	15	mg/L	DMax Conc	Monthly	Grab	Effluent
Temperature (°C)	All Year		Deg. C	DMax Conc	Monthly	Grab	Effluent

Table 6-30. Permit Limits for Outfall 005 at Bowater Newsprint Calhoun Operations.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Adsorbable Organic Halides (AOX)	All Year	2176	lb/day	DMax Load	Daily	Grab or Composite	Effluent
Adsorbable Organic Halides (AOX)	All Year	1425	lb/day	MAvg Load	Daily	Grab or Composite	Effluent
Ammonia as N (Total)	All Year	20	mg/L	DMax Conc	Weekly	Composite	Effluent
Ammonia as N (Total)	All Year	10	mg/L	MAvg Conc	Weekly	Composite	Effluent
BOD5	All Year	56551	lb/day	DMax Load	Daily	Composite	Effluent
BOD5	All Year	29670	lb/day	MAvg Load	Daily	Composite	Effluent
Color (Pt-Co Units)	All Year	40	Pt-Co Units	DMax Conc	See Permit	Grab	Effluent
Dilution Ratio for Effluent	All Year	5	Percent	DMax Conc	Daily	Calculated	Effluent
Dioxin	All Year	36	pg/L	DMax Conc	Annually	Composite	Effluent
Dioxin	All Year	36	pg/L	MAvg Conc	Annually	Composite	Effluent
Dissolved Solids, Total (TDS)	All Year	9968	mg/L	DMax Conc	Daily	Composite	Effluent
Dissolved Solids, Total (TDS)	All Year	1000000	lb/day	DMax Load	Daily	Composite	Effluent
Fecal Coliform	All Year		#/100mL	DMax Conc	Weekly	Grab	Effluent
Fecal Coliform	All Year		#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Flow	All Year		MGD	DMax Load	Daily	Instantaneous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Instantaneous	Effluent
IC25 7day Ceriodaphnia Dubia	All Year	5	Percent	DMin Conc	Monthly	Composite	Effluent
IC25 7day Fathead Minnows	All Year	5	Percent	DMin Conc	Monthly	Composite	Effluent
Stream Flow Instantaneous	All Year		MGD	DMax Load	Continuous	Recorder	Effluent
Stream Flow Instantaneous	All Year		MGD	MAvg Load	Continuous	Recorder	Effluent
TSS	All Year	95541	lb/day	DMax Load	Daily	Composite	Effluent
TSS	All Year	57436	lb/day	MAvg Load	Daily	Composite	Effluent
pH	All Year	9	SU	DMax Conc	Daily	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Daily	Grab	Effluent

Table 6-31. Permit Limits for Outfall 006 at Bowater Newsprint Calhoun Operations.

Comments:

Paper Mill. No issues.

TN0073024 Coker Millwrights Landfill

Discharger rating: Minor
City: Calhoun
County: McMinn
EFO Name: Chattanooga
Issuance Date: 8/15/02
Expiration Date: 6/30/07
Receiving Stream(s): Unnamed tributary to Rogers Creek (Outfalls 001, 002 and 003) and unnamed tributary to Meadow Branch (Outfall 005)
HUC-12: 060200020604
Effluent Summary: Storm water runoff from Outfalls 001, 002 and 003 and landfill leachate and storm water runoff from Outfall 005
Treatment system: Sedimentation pond, spray irrigation.

Segment	TN06020002087_1000
Name	Rogers Creek
Size	21.6
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Fish and Aquatic Life (Non-Supporting), Recreation (Non-Supporting), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Alteration in stream-side or littoral vegetative covers, Escherichia coli
Sources	Grazing in Riparian or Shoreline Zones

Table 6-32. Stream Segment Information for Coker Millwrights Landfill.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
48hr LC50: Ceriodaphnia Dubia	All Year		Percent	DMin Conc	Semi-annually	Grab	Effluent
Ammonia as N (Total)	Summer	2.2	mg/L	DMax Conc	Monthly	Grab	Effluent
Ammonia as N (Total)	Winter	4.2	mg/L	DMax Conc	Monthly	Grab	Effluent
B (T)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
Ba (T)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
CBOD5	All Year	38	mg/L	DMax Conc	Semi-annually	Grab	Effluent
Chloride (as Cl)	All Year	860	mg/L	DMax Conc	Semi-annually	Grab	Effluent
Flow	All Year		MGD	DMax Load	Semi-annually	Estimate	Effluent
Phosphorus, Total	All Year	2	mg/L	DMax Conc	Semi-annually	Grab	Effluent
Sulfate (T)	All Year	500	mg/L	DMax Conc	Semi-annually	Grab	Effluent
TSS	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Semi-annually	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Semi-annually	Grab	Effluent

Table 6-33. Permit Limits for Outfall 001 at Coker Millwrights Landfill.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
48hr LC50: Ceriodaphnia Dubia	All Year	100	Percent	DMin Conc	Quarterly	Grab	Effluent
48hr LC50: Fathead Minnows	All Year	100	Percent	DMin Conc	Quarterly	Grab	Effluent
Ammonia as N (Total)	Summer	2.2	MGD	DMax Conc	Monthly	Grab	Effluent
Ammonia as N (Total)	Winter	4.2	mg/L	DMax Conc	Monthly	Grab	Effluent
B (T)	All Year		mg/L	DMax Conc	Monthly	Grab	Effluent
Ba (T)	All Year		mg/L	DMax Conc	Monthly	Grab	Effluent
CBOD5	All Year	38	mg/L	DMax Conc	Monthly	Grab	Effluent
Cd (T)	All Year	0.005	mg/L	DMax Conc	Monthly	Grab	Effluent
Chloride (as Cl)	All Year	860	mg/L	DMax Conc	Monthly	Grab	Effluent
Dissolved Solids, Total (TDS)	All Year		mg/L	DMax Conc	Monthly	Grab	Effluent
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Hg (T)	All Year	0.004	mg/L	DMax Conc	Monthly	Grab	Effluent
Mn (T)	All Year	10	mg/L	DMax Conc	Monthly	Grab	Effluent
Pb (T)	All Year	0.101	mg/L	DMax Conc	Monthly	Grab	Effluent
Phosphorus, Total	All Year	2	mg/L	DMax Conc	Monthly	Grab	Effluent
Sulfate (T)	All Year	500	mg/L	DMax Conc	Monthly	Grab	Effluent
TOC	All Year		mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year		mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-34. Permit Limits for Outfall 002 at Coker Millwrights Landfill.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
48hr LC50: Ceriodaphnia Dubia	All Year		Percent	MAvg Conc	Semi-annually	Grab	Effluent
Ammonia as N (Total)	Summer	2.2	mg/L	DMax Conc	Monthly	Grab	Effluent
Ammonia as N (Total)	Winter	4.2	mg/L	DMax Conc	Monthly	Grab	Effluent
B (T)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
Ba (T)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
CBOD5	All Year	38	mg/L	DMax Conc	Semi-annually	Grab	Effluent
Chloride (as Cl)	All Year	860	mg/L	DMax Conc	Semi-annually	Grab	Effluent
Flow	All Year		MGD	DMax Load	Semi-annually	Estimate	Effluent
Phosphorus, Total	All Year	2	mg/L	DMax Conc	Semi-annually	Grab	Effluent
Sulfate (T)	All Year	500	mg/L	DMax Conc	Semi-annually	Grab	Effluent
TSS	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Semi-annually	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Semi-annually	Grab	Effluent

Table 6-35. Permit Limits for Outfall 003 at Coker Millwrights Landfill.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
48hr LC50: Ceriodaphnia Dubia	All Year		Percent	MAvg Conc	Semi-annually	Grab	Effluent
Ammonia as N (Total)	Summer	2.2	mg/L	DMax Conc	Monthly	Grab	Effluent
Ammonia as N (Total)	Winter	4.2	mg/L	DMax Conc	Monthly	Grab	Effluent
B (T)	All Year		mg/L	DMax Conc	Semi-annually	Composite	Effluent
Ba (T)	All Year		mg/L	DMax Conc	Semi-annually	Composite	Effluent
CBOD5	All Year	38	mg/L	DMax Conc	Semi-annually	Composite	Effluent
Chloride (as Cl)	All Year	860	mg/L	DMax Conc	Semi-annually	Grab	Effluent
Flow	All Year		MGD	DMax Load	Semi-annually	Estimate	Effluent
Phosphorus, Total	All Year	2	mg/L	DMax Conc	Semi-annually	Composite	Effluent
Sulfate (T)	All Year	500	mg/L	DMax Conc	Semi-annually	Grab	Effluent
TSS	All Year		mg/L	DMax Conc	Semi-annually	Composite	Effluent

Table 6-36. Permit Limits for Outfall 005 at Coker Millwrights Landfill.

EFO Comments:

Inactive fiberglass and fiberglass mat manufacturing monofill landfill with final cover. In good shape.

TN0067776 Waste Connections of TN, Inc., Meadow Branch Landfill

Discharger rating: Minor
City: Athens
County: McMinn
EFO Name: Chattanooga
Issuance Date: 3/3/06
Expiration Date: 3/2/09
Receiving Stream(s): Unnamed tributary to Meadow Branch (Outfalls S1A and S1B) and an unnamed tributary to Rogers Creek (Outfall SW2)
HUC-12: 060200020803
Effluent Summary: Industrial stormwater runoff from Outfalls S1A, S1B and SW2
Treatment system: -

Segment	TN06020002085_1000
Name	Spring Creek
Size	33.8
Unit	Miles
First Year on 303(d) List	2000
Designated Uses	Fish and Aquatic Life (Supporting), Livestock Watering and Wildlife (Supporting), Irrigation (Supporting), Recreation (Non-Supporting)
Causes	Escherichia coli
Sources	Grazing in Riparian or Shoreline Zones

Table 6-37. Stream Segment Information for Waste Connections of TN, Inc., Meadow Branch Landfill

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ag (T)	All Year	0.032	mg/L	DMax Conc	Monthly	Grab	Effluent
Ammonia as N (Total)	All Year	4	mg/L	DMax Conc	Monthly	Grab	Effluent
As (T)	All Year	0.169	mg/L	DMax Conc	Monthly	Grab	Effluent
CBOD5	All Year	30	mg/L	DMax Conc	Monthly	Grab	Effluent
Cd (T)	All Year	0.016	mg/L	DMax Conc	Monthly	Grab	Effluent
Fe (T)	All Year	5	mg/L	DMax Conc	Monthly	Grab	Effluent
Hg (T)	All Year	0.002	mg/L	DMax Conc	Monthly	Grab	Effluent
Oil and Grease (Freon EM)	All Year	15	mg/L	DMax Conc	Monthly	Grab	Effluent
Oil and Grease Visual	All Year		YES=1 NO=0	DMax Load	Monthly	Grab	Effluent
Pb (T)	All Year	0.082	mg/L	DMax Conc	Monthly	Grab	Effluent
Se (T)	All Year	0.239	mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year	200	mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	5	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-38. Permit Limits for Waste Connections of TN, Inc., Meadow Branch Landfill

EFO Comments:

No issues.

6.4.B. Water Treatment Plant Permits

TN0004642 Cleveland Utilities Water Treatment Plant

Discharger rating: Minor
City: Cleveland
County: Bradley
EFO Name: Jackson
Issuance Date: 6/30/03
Expiration Date: 6/30/08
Receiving Stream(s): Wet weather conveyance at mile 0.53 to Little Chatata Creek at mile 1.6
HUC-12: 0060200020601
Effluent Summary: Treated drinking water that does not meet turbidity limits from Outfall 001
Treatment system: Flash mix, flocculation, settling basins, rapid sand filtration

Segment	TN06020002012_0100
Name	Five Mile Branch
Size	4.02
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Fish and Aquatic Life (Not Assessed), Recreation (Not Assessed), Irrigation (Not Assessed), Livestock Watering and Wildlife (Not Assessed)
Causes	N/A
Sources	N/A

Table 6-39. Stream Segment Information for Cleveland Utilities Water Treatment Plant.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
TRC	All Year	1.5	mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-40. Permit Limits for Cleveland Utilities Water Treatment Plant.

EFO Comments:

No issues.

TN0074632 Ocoee Utility District

Discharger rating: Minor
City: Cleveland
County: Bradley
EFO Name: Jackson
Issuance Date: 9/27/04
Expiration Date: 9/29/09
Receiving Stream(s): Carpenter Springs into unnamed tributary to London Branch
HUC-12: 0060200020306
Effluent Summary: Filter backwash and/or sedimentation basin washdown from Outfall 001
Treatment system: Chlorine gas and aluminum sulfate

Segment	TN06020002014_0200
Name	London Branch
Size	5.1
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Fish and Aquatic Life (Not Assessed), Livestock Watering and Wildlife (Not Assessed), Irrigation (Not Assessed), Recreation (Not Assessed)
Causes	N/A
Sources	N/A

Table 6-41. Stream Segment Information for Ocoee Utility District.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Al (T)	All Year	0.75	mg/L	DMax Conc	Monthly	Grab	Effluent
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Settleable Solids	All Year	0.5	mL/L	DMax Conc	Monthly	Grab	Effluent
TRC	All Year	0.019	mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year	40	mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-42. Permit Limits for Ocoee Utility District.

EFO Comments:

Turbidity removal Water Treatment Plant. No issues.

TN0074993 Hiwassee Utility Commission

Discharger rating: Minor
City: Charleston
County: Bradley
EFO Name: Chattanooga
Issuance Date: 9/27/04
Expiration Date: 9/29/09
Receiving Stream(s): Hiwassee River at river mile 23.2
HUC-12: 060200020601
Effluent Summary: Filter backwash and/or sedimentation basin washdown from Outfall 001
Treatment system: Aluminum sulfate and polymer for coagulation; chlorine, fluoride, lime, phosphates added post filtration.

Segment	TN06020002008_1000
Name	Hiwassee River
Size	7.7
Unit	Miles
First Year on 303(d) List	1992
Designated Uses	Livestock Watering and Wildlife (Supporting), Irrigation (Supporting), Recreation (Non-Supporting), Fish and Aquatic Life (Supporting), Domestic Water Supply (Supporting), Industrial Water Supply (Supporting)
Causes	Escherichia coli
Sources	Grazing in Riparian or Shoreline Zones, Sanitary Sewer Overflows (Collection System Failures)

Table 6-43. Stream Segment Information for Hiwassee Utility Commission.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Al (T)	All Year	10	mg/L	DMax Conc	Monthly	Grab	Effluent
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Settleable Solids	All Year	0.5	mL/L	DMax Conc	Monthly	Grab	Effluent
TRC	All Year	1	mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year	40	mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-44. Permit Limits for Hiwassee Utility Commission.

EFO Comments:

Turbidity removal Water Treatment Plant. No issues.

TN0079952 Carpenter Spring Water Treatment Plant

Discharger rating: Minor
City: Cleveland
County: Bradley
EFO Name: Chattanooga
Issuance Date: 8/10/06
Expiration Date: 9/29/09
Receiving Stream(s): London Branch
HUC-12: 060200020601
Effluent Summary: Filter backwash and/or sedimentation basin washdown from Outfall 001
Treatment system: -

Segment	TN06020002014_0200
Name	London Branch
Size	5.1
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Fish and Aquatic Life (Not Assessed), Livestock Watering and Wildlife (Not Assessed), Irrigation (Not Assessed), Recreation (Not Assessed)
Causes	N/A
Sources	N/A

Table 6-45. Stream Segment Information for Carpenter Spring Water Treatment Plant.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Al (T)	All Year	0.75	mg/L	DMax Conc	Monthly	Grab	Effluent
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Settleable Solids	All Year	0.5	mL/L	DMax Conc	Monthly	Grab	Effluent
TRC	All Year	0.019	mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year	40	mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-46. Permit Limits for Carpenter Spring Water Treatment Plant.

EFO Comments:

Turbidity removal Water Treatment Plant. No issues.